

REMARKS**SUMMARY:**

The present application sets forth original claims 1-20, of which claims 1 and 10 are independent claims. Amendments are submitted and requested entry for claims 1 and 10. None of the amendments add any new matter to the subject application.

Original Claims 1, 2, 6-7, 9-11, 16, 17, and 19 stand rejected under 35 U.S.C. §102(b) as being allegedly anticipated by U.S. Patent No. 6,087,930 (Kulka et al.) Original claims 3-5, 8, 12-15, and 18 stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Kulka et al.

Responses to the rejections summarized above are hereafter provided with respect to each individual argument presented by the Examiner.

REJECTION OF ORIGINAL CLAIMS 1, 2, 6, 11, 14, 15, 19 and 24 (35 U.S.C. §102(b)):

Original Claims 1, 2, 6-7, 9-11, 16, 17, and 19 stand rejected under 35 U.S.C. §102(b) as being allegedly anticipated by U.S. Patent No. 6,087,930 (Kulka et al.). Based on the following remarks, Applicants respectfully request reconsideration.

Before setting forth a discussion of the prior art applied in the recent First Office Action, it is believed that a general discussion of the disclosed subject matter may be helpful as background to a discussion of the specifically claimed subject matter.

In general, the present technology is directed toward a mounting patch for mounting electronic assemblies to an inner portion of a tire.

Prior to the present disclosure, tire electronics mounting patches had provided support for a relatively heavy battery mounted together on a circuit board with the tire electronics. Such previous mounting structures needed to be physically robust and typically requiring a nut and bolt arrangement due primarily to the weight of the battery. The present technology provides for moving heavier elements (one or more batteries) at

least partially into the mounting patch thereby providing a lower center of gravity than previous mounting arrangements while separately mounting the remainder of the tire electronics outside the mounting patch.

With reference now in particular to the outstanding rejection of original claims 1, 2, 6-7, 9-11, 16, 17, and 19 under 35 U.S.C §102(b) as being allegedly anticipated by U.S. Patent No. 6,087,930 (Kulka et al.), it should first be noticed that claim 1 as presently presented is directed to "A modular electronic assembly for integration with a pneumatic tire, the tire having an inner liner, the modular electronic assembly comprising ... a mounting patch adapted for fixed positioning on the inner liner of a pneumatic tire ... a power source at least partially embedded in said mounting patch ... and at least one electronic device supported by a substrate, the electronic device and substrate mounted outside the mounting patch, and configured to receive energy from said power source.." Similarly, the only other independent claim, claim 10, as presently presented is directed to "A tire assembly with integrated electronic components for monitoring associated conditions thereof, said tire assembly comprising ... a pneumatic tire having an inner liner ... a support substrate ... at least one condition-responsive device mounted on said substrate ... a modular patch carrying said support substrate ... said modular patch being mounted on the inner liner of said pneumatic tire ... and a power source for supplying energy to said at least one condition-responsive device, wherein said power source is at least partially embedded in said modular patch and said support substrate and said at least one condition-responsive device are positioned outside said modular patch."

Applicants respectfully submit that Kulka et al. cited by the Examiner in support of the outstanding rejection does not provide the particular aspects currently claimed. More particularly, while Kulka et al. discloses tire sensor arrangements, he does not disclose a tire sensor arrangement wherein the tire electronic are mounted outside the mounting patch while the power supply (battery) is at least partially embedded in the mounting patch. A significant aspect to the present technology resides in the location of the power supply (battery) within the mounting patch to obtain a lower center of gravity

thus having increased mechanical stability and survivability in a tire environment as discussed in the specification at the bottom of page 10 while at the same time mounting the electronics outside the mounting patch.

As may best be seen in Figures 1 and 2 of Kulka et al. his battery power source is encased within a rubber housing along with the electronics. In addition to the aspects of the present invention discussed in Applicants' disclosure, the present configuration allows the electronics portion of the tire sensor to be attached to a replacement mounting patch with a new battery to permit continued usage of the tire electronics. Alternatively, the two part configuration of the presently claimed subject matter permits mounting of the mounting patch in a tire followed by attachment of the tire electronics. Such sequence may well be advantage if the methodologies used to secure the mounting patch to the inner liner of the tire might be harmful to the tire electronics. Kulka et al. does not provide such capability.

REJECTION OF CLAIMS 3-5, 8, 12-15, and 18 (35 U.S.C. §103(a)):

With respect to claims 3-5, 8, 12-15, and 18: Based on the arguments presented above with respect to presently submitted claims 1 and 10, Applicants submit that such claims should be allowed over Kulka et al. Since claims 3-5, 8, 12-15, and 18 variously depend from otherwise allowable claims 1 or 10 and further limit same, claims 3-5, 8, 12-15, and 18 should also be allowed. Acknowledgement of the same is earnestly solicited.

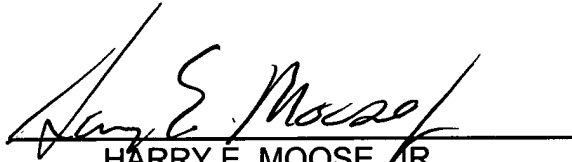
CONCLUSION:

Inasmuch as all outstanding issues have been addressed, it is respectfully submitted that the present application, including claims 1-20, is in complete condition for issuance of a formal Notice of Allowance, an action to such effect is earnestly solicited. The Examiner is invited to telephone the undersigned at his convenience should only minor issues remain after consideration of this response in order to permit early resolution of the same or if he has any questions regarding this matter.

Respectfully submitted,

DORITY & MANNING,
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